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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/242,490	05/13/99	USUI	M 053288

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EXAMINER

NGHIEM, M

ART UNIT	PAPER NUMBER
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2861

DATE MAILED: 12/07/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trad marks

Office Action Summary

Application No.

09/242,490

Applicant(s)

Usui et al.

Examiner

Michael Nghiem

Group Art Unit

2861



☐ Responsive to communication(s) filed on _____

☐ This action is **FINAL**.

☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

Disposition of Claims

☒ Claim(s) 1-13 is/are pending in the application.

Of the above, claim(s) _____ is/are withdrawn from consideration.

☐ Claim(s) _____ is/are allowed.

☒ Claim(s) 1-13 is/are rejected.

☐ Claim(s) _____ is/are objected to.

☐ Claims _____ are subject to restriction or election requirement.

Application Papers

☒ See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948.

☒ The drawing(s) filed on May 13, 1999 is/are objected to by the Examiner.

☐ The proposed drawing correction, filed on _____ is ☐ approved ☐ disapproved.

☒ The specification is objected to by the Examiner.

☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

☒ All ☐ Some* ☐ None of the CERTIFIED copies of the priority documents have been
☒ received.

☐ received in Application No. (Series Code/Serial Number) _____

☐ received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

*Certified copies not received: _____

☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

☒ Notice of References Cited, PTO-892

☒ Information Disclosure Statement(s), PTO-1449, Paper No(s). 2,7

☐ Interview Summary, PTO-413

☒ Notice of Draftsperson's Patent Drawing Review, PTO-948

☐ Notice of Informal Patent Application, PTO-152

--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---

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DETAILED ACTION

Specification

1. The disclosure is objected to because of the following informalities:
 - reference number (7) (page 5, lines 18, 20) denotes both a “suction pump” (line 18) and a “cleaning member” (line 20).
 - reference number (38) (e.g. page 8, line 26, page 9, line 6) denotes both “grooves” (page 8, line 26) and an “induction hole” (page 9, line 6).Appropriate correction is required.

Drawings

2. The drawings are objected to under 37 CFR 1.83(a) because they fail to show a “cleaning member” (page 5, line 20) as described in the specification. Any structural detail that is essential for a proper understanding of the disclosed invention should be shown in the drawing. MPEP § 608.02(d). Correction is required.

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3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "38" has been used to designate both "induction holes" and "grooves" (Figs. 6, 7a-c). Correction is required.

4. Figure 13 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 5-10, 12, and 13 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 5-10, 12, and 13 are misdescriptive:

- claim 5, "... said induction paths are formed at positions that are farthest from said ink supply path". The specification, e.g., page 9, 19-22, does not support this feature.

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- claims 6-10 and 12, the features of the claims extending “from an ink inlet for said second ink supply path to an area that does not face said first ink supply path” (claim 4).
- claim 12, “... said ink induction paths are formed in a holder that is to be mounted in said joint area, by using a rod-shaped member ...”. The way the holder is mounted is misdescriptive (See specification, page 11, lines 13-15).
- claim 13, “... an area that has a greater wettability to ink ...than ...” is not supported by the specification, page 12, 1st paragraph.

The remaining claims are also rejected under 35 U.S.C. 112, second paragraph, for being dependent upon a rejected base claim.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Koto (US 4,368,478).

Koto discloses all the claimed limitations:

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- an ink-jet recording apparatus (Fig. 3) comprising:

- a recording head (51) for receiving ink supplied via a first ink supply path (path left of 53, Fig. 3) and for ejecting ink droplets;

- a second ink supply path (57) along which ink is transmitted from an ink cartridge (58) to said first ink supply path; and

- a filter (53) which is located at a joint area that forms a communication portion situated between said first ink supply path and said second ink supply path (joint area at 53, Fig. 3), wherein ink induction paths (56) are formed at said joint area on the side of said second ink supply path in order to use capillary attraction to induce the flow of ink through said filter (Fig. 3).

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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Claims 2-4 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Koto in view of Oda et al. (US 5,821,965).

Koto further discloses the following claimed limitations:

- said ink induction paths are constituted by projections (projection between 56, Fig. 5, 90, Fig. 9a) that are radially formed at small pitches so as to capture an air bubble (90, Fig. 9a),
- grooves are formed between said adjacent projections in order to supply ink to said filter using capillary attraction (56, Fig. 5, grooves between 90, Fig. 9a).

However, Koto does not disclose:

- said ink induction paths are extended from an ink inlet for said second ink supply path to an area that does not face said first ink supply path,
- ink induction paths are formed so as to be coaxial with said second ink supply path.

Nevertheless, Oda et al. disclose an ink induction path (19) extended from an ink inlet (inlet of 19) for an ink supply path (17) to an area that does not face said first ink supply path (bottom portion of 19, Fig. 11), the ink induction path is formed so as to be coaxial with said ink supply path (19 is coaxial with 17, Fig. 11) for the purpose of inducing ink flow to a filter (18).

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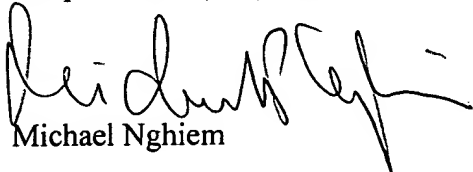
Therefore, it would have been obvious to a person having ordinary skill in the art at the time the invention was made to provide Koto with an ink induction path as disclosed by Oda et al. for the purpose of inducing ink flow to a filter.

Claims 5-10, 12, and 13 are not considered for prior art because the limitations recited in the claims are misdescriptive.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Boyd et al. (EP 529 879) discloses grooves (50) in an ink supply path (Fig. 7).

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Nghiem whose telephone number is (703) 306-3445. An inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist at (703) 308-0956.



Michael Nghiem

December 5, 2000